# **GLASS VICE®** INSTALLATION MANUAL











#### ASSEMBLY OF ADJUSTABLE CLAMPING SYSTEM



Before inserting the glass you must install the clamping system and grub screws.

**Step 1:** Insert 8x8x140mm bar into internal cavity.

One each side.

Insert 3x140mm polyethylene strip in front of each bar.

Insert the 8x12x40mm rigidity bar into the centre bottom cavity.

Then insert the 2x 3x10x30mm plastic spacers on top of the rigidity bar.

- Step 2: Insert glass.
- Step 3: Using appropriate size allen key insert grub screws into each hole. Turn approximately 3 full turns of the allen key for each grub screw.

You are now ready to install the glass.





#### ATTACHMENT OF INTERCHANGEABLE BASES & THREADED RODS



Before attachment of M10 threaded rod, apply a drop of loctite to each of the threaded rods to be screwed into the base clamp.

Before attachment of the 'S' bracket (if applicable), a layer of prolan protective lanolin (or similar) should be applied between the Glass Vice glass clamp and the 'S' bracket.

**NOTE:** The Vice is affixed with 2 x M10 rods into a substrate. The M10 rods are adhered with high performance epoxy resin. Epoxy must cure for approximately 20 hours. As such, it is recommended that a frameless glass installation take place over 2 days :

DAY 1 - drill and install all Vices and allow epoxy to set

**DAY 2** – Install glass panels. With the patented adjustability of the Vice 'double friction' glass clamping method, installation of glass can happen quickly on day 2

**NOTE:** Do not epoxy Vice until the Loctite has set and there is no movement in the threaded rods.





#### DIRECT FIXING OF GLASS VICE® INTO CONCRETE/TILE

A timber template is required for precise drilling of 95mm deep x Ø18mm holes into which the threaded rods protruding from the Glass Vice<sup>®</sup> base are inserted.

### SETUP AND LAYOUT OF TIMBER TEMPLATE



The drawing (above) shows the layout of an installation timber template.

Top & bottom holes - Provides position to drill 2 x Ø18mm holes

**Centre hole** - Sight hole to view chalk line or string line. The mid-point of this template hole also provides the centre point of the Vice as well centre point of the glass.





#### HOW TO USE A TIMBER TEMPLATE

**Chalk/String line** - The centre of the Glass Vice<sup>®</sup> is marked on the chalk line. Use the middle hole to sight the centre mark.







#### DRILLING HOLES FOR GLASS VICE®

Place timber template in position. With one foot on each side of the template, using a Ø20mm diamond core drill bit, core a hole 10mm deep and remove the 2x cores. Then, using an Ø18mm masonry bit, drill approx 95mm deep.

By core drilling a shallow 'pilot' Ø20mm hole first, it reduces the risk of a hole 'blowing out' at the top if only a Ø18mm masonry bit were used for tile or concrete. The holes must then be blown out with a compressor & air hose to remove all concrete dust (or hand blower and pump may also be used). Then use the Ø20mm steel wire bottle brush to clean out the hole by inserting in and out a number of times until no dust is left in and on the side of the hole. Blow hole out agina and insert finger into hole to make sure the sides of the hole are free of dust. Fill each hole 3/4 full with epoxy resin.



Insert threaded rods into the two holes and then remove. This will eliminate the air pockets in the epoxy. Pour another small blob of epoxy at the top of the holes. Insert threaded rods into holes ready for blumbing and squaring. When positioning the Vice close to the edge of concrete slab, the centre of the closest threaded rod **must be no less then 50mm** from the edge of the concrete slab.







#### PLUMBING & LEVELLING OF GLASS VICE®

A builder's square is ideal for this step. The clamp must be square to the line (stringline/ chalk line) and levelled on both sides.

Plumb and level each vice immediately after inserting into epoxy.



**NOTE:** When a line of Glass Vice have been epoxied, carefully inspect the group of vices and ensure all are in alignment with each other. Using RE500 Epoxy will give you plenty of time to readjust if necessary.





#### TO PLUMB UP THE GLASS



Allen keys this way for touch tightening the glass

Allen keys this way for final tightening

Once glass is inserted into vice, start with the two middle grub screws. With a person either side, wind in grub screws. The glass will become more upright. The main thing to look for is that there is a gap between the vice and the glass (not touching the glass).

Once the gap is achieved, insert allen key short end first and tighten firmly. It is important that two people tighten at the same time. Repeat this operation on the top two grub screws. Insert allen key on both side long end first. Hold a level on the glass and turn allan key until glass is plumb. When glass is plumb, tighten other grub screw. Insert allen key short end first and tighten firmly.

Insert allen keys into bottom two grub screws and tighten firmly at the same time. The bottom grub screws securely 'lock' both side friction bars into place & provide overall rigidity.





#### PLUMBING UP MULTIPLE SHEETS IN A STRAIGHT LINE



When plumbing and levelling two or more glass panels, a stringline should be used.

Once the glass panels are inserted into the Glass Vice, it is recommended to achieve even gap spacing between the glass panels.

Plumb up the two end panels first. Attach a stringline from one end to the other at the top of the glass panels. Next, align the glass panels to the stringline. This can be done by lifting and inserting the necessary number of packers under the glass in the Glass Vice, or remove packers if glass is too high.

Always leave at least a 1mm thick spacer between the glass and the Vice.

Once the top of the glass panels line up with the stringline, the rest of the panels can be plumbed up with regard to the stringline.

**NOTE:** When inserting glass into the Glass Vice, the glass panels must be plumb. (Not on an angle)



TOP VIEW OF VICE AND GLASS

Have the string line on one edge of the glass. Once to have the heights adjusted this will give you a straight edge to line the rest of the panels up to.





#### **'S' BRACKET DETAIL FOR DECKING**







#### **'S' BRACKET INSTALLATION TO TIMBER DECKS**



- Turn Vice upside down and place 'S' bracket onto base of Vice. Screw threaded rod approx 10mm into Vice, then use M10 hex nuts to secure 'S' bracket into position. Ensure hex nuts are secured very tightly.
- 2. Plan position of Vices as if installing a standard direct fix Vice
- Drill a Ø24mm hole, 10mm deep with timber spade bit. Then, with an Ø18 spade bit, drill a further 10mm pilot hole. Into that pilot hole, use a standard steel drill bit and drill 100mm deep overall.
- 4. Fill both holes with epoxy resin & insert Vice. Refer to previous section and follow same installation steps as the Direct Fix Vice. Allow 20 hours for epoxy to set.

Do not install glass or screw off 'S' bracket with timber coach screw until the following day. After leaving epoxy to set for 20 hours, screw in CSK coach screws and install glass.

The combination of epoxy & coach screws with the 'S' Bracket is the ultimate timber deck installation system





#### **HEIGHT ADJUSTMENT PACKERS**



Stainless steel packers fit seamlessly under the Direct Fix Vice and can be used with 'S' bracket installations also.

Packers should be used when there is fall in the slab or deck you are installing to.

#### Guide to Use:

Determine where each Glass Vice will be installed. Take a measurement of fall between one Vice to the next.

0 to 10mm fall - no packer required

10 to 20mm fall - use 10mm packer

20 to 30mm fall – use 20mm packer

30 to 40mm fall – use 30mm packer

40 to 50mm fall – use 40mm packer

NOTE: If there is only 15mm of fall over the whole job, no packers are required.





### ARCHITECTURAL VICE INSTALLATION

#### ASK US ABOUT THE SHORT INSTALLATION VIDEO WE CAN PROVIDE







### ALTERNATIVE TIMBER DECK FIXING DIAGRAM







## CONCRETE FIXING DIAGRAMS





CONCRETE FIXING DETAIL







# INSTALLATION REQUIREMENT WHEN FITTING ARCHITECTURAL VICE WITH STANDOFF SPACERS



Firstly, plumb up the two standoffs. Then place 1x M10 1.5mm thick stainless steel washer on top of the rod/lag screw.



Attach the architectural vice to the rods/lag screws.

**NOTE:** Because the architectural vice is a double casting, it is slightly out of plumb. Putting the 1.5mm washer on top of the threaded rod or lag screw corrects this.